



**FINAL PROJECT REPORT
(NOVEMBER 2002)**

SUBMITTED TO USAID

FOR THE

AFGHANISTAN CRISIS RELIEF PROJECT

**AWARD #AOT-G-00-00-00259-00
MOD. (1) – Objective #1**

SFL/SNI PROJECT # 8413B

2001 - 2003

AFGHANISTAN

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A. EXECUTIVE SUMMARY

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Program Title: **Afghanistan Crisis Relief**

Grant Number: Award #AOT-G-00-00-00259-00

Country/Region: Afghanistan/Herat, Takhar & Badakhshan

Disaster/Hazard: Drought

Time Period Covered by this Report: Project Completion, November 2002

Main Activities this Report Period

Objective #1: Completion of Project. Out of a proposed 26 wells, 25 were completed (one damaged beyond repair due to earthquake). Gabion wall flood control was completed in 5 villages. The spring pipeline project was completed in 17 villages (though 1 system is currently not in use due to a broken PVC pipe).

Objective #1: Emergency Intervention for 81,000 Persons in Takhar/Badakhshan

Key Indicator	Target	Finished	Overall Project % Completed
Emergency Food Dist	3,000 families	7,250	242%
Well Construction	26	25	96% Project Completed
Pipeline Installation	24 km	27.9	116%
Source Spring Rehab	17	17	100%
Concrete Reservoirs	37	25	68% No Additional Reservoirs Planned
Gabion Wall Length	1,050 m	2,185	208%
People Impacted	81,000	193,213	239%

B. PROGRAM OVERVIEW

Goal

The goal of this project was to effectively reduce the target population's vulnerability to starvation, disease and death.

Objective #1: Emergency Intervention for 81,000 People in Takhar/Badakhshan

- Emergency food distribution to 3,000 marginal Shar-i-Buzurg village families
- Food-For-Work (FFW) to 2,250 villagers in Takhar/Badakshan
- Water quality/quantity/access construction in 24 villages
- Flood control construction in 5 villages

C. PROGRAM PERFORMANCE

Objective #1

1. FOOD DISTRIBUTION

SFL made a one-time emergency, free food distribution in the Shar-i-Buzurg Region in winter 2001. A distribution was first made in the Duwong area to 2,199 families in 17 villages. Later, another 1,360 families in 14 villages in Pasakoh received a one-time distribution. Together 3,559 families received this one-time food intervention, representing an estimated 21,354 individuals (based on an assumed average of 6 persons per family).

Families That Received Food

Duwong Village	# of Beneficiary Families
Qassab	150
Khahak	75
Shah-Dasht	60
Chashma-i-Kharita	43
Danush-Mandi	135
Ghun-Ghars	239
Shakh-Appar	135
Wundiyn	239
Sang-Dara	135
Zer-i-Kotal	60
Deh-Toot	96
Chulganshar	112
Abkanda	454
Safidara	66
Awiz	99
Fur-i-Asuk	46
Siya-Sang	55
TOTAL	2,199

Pasakoh Village	# of Beneficiary Families
Gardanak	237
Aspakha	204
Kham Ab	87
Kalati	70
Sangi Khah	153
Koul Darah	41
Bulbul Darah	42
Yakhmanistan	76
Mumyaluk	80
Chakah Kha	147
Dara-i-Sayeedan	33
Khak Petaw	127
Rubta Gardan	52
Kura-i-Mabain	11
TOTAL	1,360

In addition to the emergency food distribution in the Duwong and Pasakoh Districts listed above, food was distributed under the FOODAC program for both food-for-work and free food distributions. A total of 79 distributions were conducted in 22 villages between 19 October 2001 and 31 August 2002. Of the 79 distributions conducted, 10 were free food, 35 were food-for-work, and 34 were a combination of free food and food-for-work distribution. The distributions centered around 7 project sites: water reservoir construction in Rustaq, Rustaq District gabion flood control, gabion project in Khailan, gabion project in Julgah, gabion work in Dasht-i-Qala (DQ), well construction and other/emergency distributions. A total of 9,408 families received wheat under this food-for-work component and 3,691 families received free food - a total of 13,099 families. In most of the distributions, each family received a 50 kg bag of wheat (a few of the food-for-work families received a slightly smaller portion), with a total of 12,744 bags distributed.

Food Distribution Project

Distribution	Food-for-Work		Free Food		Total # of Villages	Bags of Wheat
	Families	Villages	Families	Villages		
Reservoir	4,741	11	1,721	10	12	6,460
Rustaq Flood Control	913	4	508	4	5	1,408
Khailan Gabion	385	1			1	286
Julgah Gabion	1,515	1			1	1,559
DQ Flood Control	1,282	1			1	1,017
Wells	62	1			1	42
Free/Other Distributions	510	3	1,462	2	3	1,972
Total	9,408	22	3,691	16	22	12,744

The completion of the food distribution projects had a large impact on the lives of the people of Badakhshan/Takhar. A total of 16,658 families received help under this FOODAC food security project, either as free emergency food or as the result of food-for-work. Based on an average family size of 6, nearly 100,000 people benefited from the efforts of the food component in Objective #1.

A cash-for-work component to complete the Rustaq water supply system and the Dasht-i-Qala gabion flood control project began on 21 October 2002, with the final pay-out on 13 February 2003. A total of 571 workers received \$5,738 (plus 23 blankets and 37 sleeping bags) for their participation in these 2 projects.

Cash for Work

Project	# of Workers	US Dollars Paid
Rustaq Water Supply	353	\$3,405*
DQ Flood Control	218	\$2,333
Total	571	\$5,738

* 45 workers were paid 23 blankets and 37 sleeping bags instead of money.
This excludes payment to 8 supervisors.

The proposal called for an emergency intervention to assist 81,000 people. Combining the food (both food-for-work and free food), cash and direct benefits of the implemented projects, 28,702 families were impacted. The product managers for this project maintained detailed information about the recipients of the cash/food-for-work (attached in the Appendix); however, in most cases they did not gather information on family size. Where family size information was missing, we used a conservative guideline of 6 people per family. Almost 200,000 beneficiaries (an estimated 193,213 people) were helped by these efforts, 239% of the target.



SFL Food Distribution in Rustaq Village

Beneficiaries of Cash/Food for Work

Activity	# of Beneficiary Families	Estimated # of Beneficiary People
Well Construction - FFW Project	62	372
Well-Use of Water - Direct Benefits	3,561	25,640
Flood Control - FFW Project	4,095	24,570
Flood Control - CFW Project	218	1,308
Gabion Flood Control Direct Benefit	4,368	29,310
Pipeline - FFW Project	4,741	28,446
Pipeline - CFW Project	353	2,118
Pipeline - Direct Benefit from Water	3,536	34,889
Other FFW Projects	510	3,060
Free Food Distributions	7,250	43,500
Total # of Beneficiaries	28,702	193,213
% of 81,000 People Targeted		239%

Activity	# of Beneficiary Families	Estimated # of Beneficiary People
FOODAC (FFW and Free Distributions)	16,658	99,948
Cash-for-Work	571	3,426
Direct Benefits from Projects	11,465	89,839
Total # of Beneficiaries	28,702	193,213

2. PROJECT ACTIVITY

Well Construction

Dig 26 new wells with minimum 20 l/m capacity.

It was proposed to dig 26 shallow-depth wells in 7 villages in the districts of Yang-i-Qala, Dasht-i-Qala and Khawaja Bahawudin. A total of 25 wells were completed, with the depth of the wells ranging from 12 to 40 meters. The 26th well planned for the village of Julgah at “Julgah Abdul Nazar” was damaged beyond repair by an earthquake just after construction had started. A total of 62 laborers worked on these 26 wells in 7 villages, impacting 372 people. The direct beneficiaries from the completion of the wells are the 25,640 people who reside in these 7 villages.



SFL Staff, Mr. Wadoud, Pours Himself a Glass of Clean Water from One of Our Constructed Wells

With the exception of the well in the village of Julgah Abdul Nazar, all of the water projects were successfully completed. During the course of the summer, water-table levels dropped, resulting in the failure of 8 wells. In these cases, SFL dug deeper and extended piping in the well in an effort to provide water year-round. Should the water table remain low, it is uncertain how the wells will function. In addition to the lowered water table, the pump mechanisms used in the wells were poor quality, resulting in periodical mechanical malfunction. In these cases, we sent our technical staff to repair and maintain the mechanisms. We soon realized that constant preventative maintenance would be a key to long-term success of the wells; therefore, we trained a mechanic to be available to the local authorities in the event that a well ceases to function. As we signed over the maintenance and care of the wells to the governors of each district, we instructed them on the potential problems and provided them with the local mechanic's contact information.

All wells are currently functioning and meeting the minimum 20 l/m rate as targeted in the proposal.

Construction of Wells

Task Detail	Dasht-i-Qala	Yang-i-Qala*	Khawaja Bahawudin	
Starting Date	21-Oct-01	01-Dec-01	28-Feb-02	Total
No. of Wells	11	9	6	26
Digging	11	9	6	26
Ring Production	374	401	148	923
Top Ring Production	11	9	6	25
Column Production	22	18	12	52
Slab Production	11	9	6	26
Manhole Cover	12	9	6	27
Sinking of Rings	374	401	148	923
Apron Construction	11	9	6	25
Pump Installation	11	9	6	25

*Note: One well damaged by earthquake and not repaired

Impact of Well Construction on Districts (21 October 2001 to February 2002)					
No.	District	Villages	Beneficiary Families	Population	Depth of Well
1	Dasht-i-Qala	Tajik Qeshlaq Center	80	576	24
2		Tajik Qeshlaq (Arabha)	120	864	24
3		Tajik Qeshlaq (Khal Boy)	45	324	24
4		Arif Khan Mosque	60	432	24
5		Taluqani Qeshlaq	43	310	24
6		Abdul Qudous Mosque	65	468	24
7		Juldash Big	83	598	24
8		Saifullah (Mosque)	130	936	24
9		Haji Abdul Rahman # 1	150	1080	24
10		Haji Abdul Rahman # 2	140	1008	24
11		Shah Wali Mosque	110	792	26
12	Yang-i-Qala	Old Town	260	1872	20
13		Aruq Qeshlaq	250	1800	28
14		Kaftar Ali	180	1296	16
15		Julgah Mula Big	200	1440	35
16		Julgah Jund Nafas Big	65	468	35
17		Julgah Nafas Big	140	1008	35
18		Rahim Abad	300	2160	12
19		Zard Kamar Jami Mosque	220	1584	40
20	Khawaja Bahawudin	Kh. Bahawudin Town	1 40	1008	24
21		Mughul Qeshlaq	110	792	24
22		Mughul Qeshlaq (Dawlat)	150	1080	24
23		Lala Guzuar (Arbab Salim)	250	1800	24
24		Lala Guzuar Jami Mosque	210	1512	24
25		Amir Mali Mosque	60	432	24
	Total		3,561	25,640	
Height of Each Ring (45cm) Standard					
Average Diameter of the Well (105cm)					

Reservoir Construction and Springs Protection

Install approximately 24 kilometers of pipeline to replace open ditch channels, construct 37 concrete reservoirs, and clean and protect 17 springs.

A total of 27.9 kilometers were excavated for PVC pipes, with 25 concrete storage reservoirs constructed to protect the 17 springs from contamination. Work in all 17 villages was completed – pipes installed, reservoirs constructed, springs lined and cleaned, overflow pools constructed, and systems flushed, though one system is unusable due to a broken pipeline. A total of 4,741 laborers received food-for-work in completing this project, while 353 workers received cash-for-work on the pipeline project in the Rustaq District (population 34,889); therefore, nearly 35,000 people are benefiting from the completion of this project. The project has been signed over to the village/district officials who will maintain the completed system. Details regarding the pipelines and reservoirs are included in the Appendix of this report.

The initial project was to use rigid PVC pipes to pipe water from a spring source to a constructed concrete reservoir. However, we found that flexible pipes had to be used in the rocky mountainous villages, especially in Shar-i-Buzurg. The flexible pipe actually worked well. One problem with the rigid pipe is that it becomes brittle in cold weather, with a tendency to break. That is the situation with the PVC pipe in Sar-i-Ghaar, where the pipeline broke and is currently unusable. Future spring pipeline projects need to address insulating the pipe, especially in exposed areas.



Concrete Reservoir in Chakakha Village

Districts Affected by Reservoir Project	# of Villages	Kms Excavated
Rustaq	7	18.7
Cha-Ab	2	1.7
Shar-i-Buzurg	8	7.6
Total	17	28.0

Villages affected by Reservoir Project	District	Population
Khaja Khair Ab	Rustaq	1,240
Ghanj	Rustaq	4,960
Eil Kashan	Rustaq	2,480
Dewary	Rustaq	2,480
Sar-i-Ghaar	Rustaq	6,200
Gorgan Village	Rustaq	1,860
Chabdara & Batash	Rustaq	5,580
Shoor Village	Cha-Ab	760
Gazan Village	Cha-Ab	2,360
Gardanac	Shar-i-Buzurg	1,395
Chakakha	Shar-i-Buzurg	1,042
Rubat-i-Gard	Shar-i-Buzurg	360
Mumyaluk	Shar-i-Buzurg	477
Koul Darah	Shar-i-Buzurg	415
Khamha	Shar-i-Buzurg	868
Khak Petaw	Shar-i-Buzurg	1,017
Sangikhowa	Shar-i-Buzurg	1,395
Total		34,889

Upon visiting Dewary Village where a spring capping and reservoir system project was under construction, SFL staff received a warm welcome from the village leadership. Dewary Village had been enjoying clean and accessible water for less than a month, but the mullah in the village claimed that all stomach illnesses had ceased. A definite improvement in lifestyle was also a cause for great celebration among the village people, who before the completion of the pipeline had to walk 3 kilometers to the source of the spring just to obtain their water.

Most families in the town of Rustaq have not had clean potable water for many years. Individuals had been suffering from water borne diseases because they were storing contaminated ditch water in the pools, using this water for cooking and cleaning, resulting in malaria and typhoid. As a result of the spring capping and reservoir system project, the authorities and local population value the work of SFL in providing clean spring water. During the project implementation, many people learned some plumbing skills, so now many village men can do the maintenance and repairs on the system without outside assistance. The village authorities have hired these self-taught plumbers to manage this new system, empowering them to make minor repairs and cleaning.

Gabion Wall – Flood Control Construction

Construct over 1,050 meters of 3-meter high walls to protect approximately 7,000 hectares (17,500 acres) of critical cropland from the effects of flooding, benefiting approximately 29,000 villagers.

The 5 villages of Gogari, Khanaqa, Khailon, Julgah and Dasht-i-Qala were targeted for this flood control project because of the seriousness of the flooding/erosion problems in these regions. While the villages are not in danger in summer when the water is very low or in the fall and winter when the water is at moderate levels, the villages are at risk in the spring. During the spring, flashfloods often occur, flooding valuable farmland and causing massive erosion and loss of land along the river. SFL constructed a set of heavy embankments made of gabion wire woven together to form a mesh, filled with large rocks to act as a “breaker” against the force of these yearly floods.



Destroyed Dasht-i-Qala Channel before Construction of Gabion Wall

The DQ irrigation channel rebuilding project was the most aggressive of the gabion flood control projects undertaken by SFL. The village of Dasht-i-Qala's gabion wall was initially meant to protect the irrigation channel from being destroyed by the mighty KokCha River. In early 2002 a flashflood occurred, resulting in the loss of 200 meters of the channel into the river. As a result, a

larger gabion project was enacted to repair the channel and to protect against future damage. This project was finished on 15 December 2002. The extension of the DQ wall has helped protect 100,000 acres of cropland from future flooding.

The length of the 5 finished gabion wall projects is 2,185 meters, more than double the originally proposed 1,050 meters. Over 4,300 workers labored on this project. Food-for-work payments were made to 4,095 families, benefiting 24,570 individuals. An additional 218 workers on the DQ wall were paid in cash-for-work, improving the financial well being of 1,308 people. The flood control walls in these 5 villages directly benefited 29,310 people, the population of the villages.



Completed Dasht-i-Qala Flood Control Project

Gabion Wall Construction - December 2002

Items Measured	Villages					Total
	Gogari	Khanaqa	Khailon	Julga	Dasht-i-Qala	
Finished Wall Size m3	2,108	1,241	2,590	4,659	6,494	17,092
Foundation Excavation m3	480	456	480	750	-	2,166
Number of Dikes	6	5	7	25	13	56
Length of Proposed Wall in Meters	140	205	210	235	260	1,050
Length of Finished Wall in Meters	361	207	337	615	665	2,185
Type of Wall	Intake & Protection	Intake & Protection	Intake & Protection	12 Intake 13 Retaining Walls	Protection Gabion Wall for Channel	

Gabion Walls Construction - Village/District

Gabion Walls	Village	District	Population
	Dasht-i-Qala	Dasht-i-Qala	12,400
	Gogari	Rustaq	2,340
	Khanaqa	Rustaq	6,200
	Khailon	Cha-Ab	5,270
	Julga	Yang-i-Qala	3,100
	Total		29,310

During a coordination meeting in Dasht-i-Qala a month after the flood control project had been completed, we were approached by the Regional Governor Fakhroddin, who said, “Thanks to SFL and their ability to help us when no one else would, we are now able to get water back to the people and restore the land. We asked other provinces and NGOs for assistance, but no one besides SFL would help us. Thank you for the assistance when we needed it most.”

E. INDICATOR MEASUREMENTS

Objective #1

- 1) Number of households who received food.
 - In the first quarter of 2001, 3,559 families received emergency food. Between October 2001 and August 2002, another 3,691 families received free food under the FOODAC program. A total of 7,250 families received free food or 242% of the project target of 3,000 households.
- 2) Number of persons who benefited from food distribution.
 - A total of 9,408 workers received FFW food, benefiting 56,448 people, 161% of the project target of 35,000 people.
- 3) Average % increases in weight-to-height of recipients.
 - Not applicable – one time distributions.
- 4) Average liters/day output from reservoirs in new spring-fed water systems.
 - Acceptable level.
- 5) Average liters/day output of new wells.
 - All wells received quality checks. Quantity of water for functioning wells met the 20-liters/minute standard.
- 6) Percent of spring water supply systems, wells and retaining walls completed, as well as total number of units of each completed.
 - Spring-fed water supply systems – 16 of 17 systems completed (94%). One pipeline broken.
 - Wells – 25 of the 26 wells completed (96%). One well damaged beyond repair by earthquake.
 - Gabion flood control walls – 5 out of the 5 walls completed (100%).